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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/167,444 10/06/98 JARRETT

M 98-348

QM02/0405

EXAMINER

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ART UNIT

PAPER NUMBER

3745

DATE MAILED:

04/05/00

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. 09/167,444	Applicant(s) Jarret
	Examiner Thomas E. Lazo	Group Art Unit 3745

- Responsive to communication(s) filed on \_\_\_\_\_.
- This action is **FINAL**.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

- Claim(s) 1-20 is/are pending in the application.
- Of the above, claim(s) 12-20 is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-11 is/are rejected.
- Claim(s) 1 is/are objected to.
- Claims 12-20 are subject to restriction or election requirement.

#### Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- All  Some\*  None of the CERTIFIED copies of the priority documents have been
- received.
  - received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- Notice of References Cited, PTO-892
- Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- Interview Summary, PTO-413
- Notice of Draftsperson's Patent Drawing Review, PTO-948
- Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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**DETAILED ACTION**

***Election/Restriction***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-11, drawn to a two piece unitary piston, classified in class 92, subclass 186.
- II. Claims 12-20, drawn to a process of making a two piece unitary piston, classified in class 29, subclass 888.044.

Invention I and invention II are related as product made and process of making. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as bolting, clenching, or seaming.

Because these inventions are distinct for the reasons given above and the search required for invention I is not required for invention II, restriction for examination purposes as indicated is proper.

During a telephone conversation with on Larry G. Cain (31,150) on 3/30/00 a provisional election was made with traverse to prosecute invention I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-20 are withdrawn

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from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

*Specification*

The disclosure is objected to because of the following informalities:

on page 1, line 8, “engines” should be --engine--;

on page 2, line 27, “an” should be deleted;

on page 3, line 3, “adapter” should be --adapted--;

on page 4, line 26, “valve” should be --valves--;

on page 5, lines 1 and 4, “convention” should be --conventional--;

on page 8, line 20, “aligns” should be --aligned.

Appropriate correction is required.

*Claim Objections*

Claims 1 is objected to because of the following informalities:

in claim 1, line 1, “adapter” should be --adapted--.

Appropriate correction is required.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (6,032,619), as applied to claim 1 above, in view of Fletcher-Jones (5,913,960). Zhu et al. discloses in figures 1-3 all of the claimed subject matter further including radial and axial spacing between the interface of the bottom surface and the ring band support surface 50 and the interface of the mating surface the top surface 54, the interface of the mating surface and the top surface 54 being closer to a combustion side 36 of the head member 22 than the interface of the bottom surface and the ring band support surface 50, a piston cooling gallery 58, a head member cooling gallery, a skirt member cooling gallery, a coolant inlet 88 and a coolant outlet 90. Zhu et al. does not disclose casting or forging a steel head member and a steel skirt member.

Fletcher-Jones discloses casting or forging a head member and a skirt member from a ferrous material form a unitary piston. See Fletcher-Jones col. 1, lines 34-44.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the formation of the piston unit of Zhu et al., based on the teachings of Fletcher-Jones, to include forging or casting a steel head member and a steel skirt member to form a unitary piston.

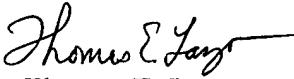
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***Contact Information***

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (703) 308-2285. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (703) 308-1044. The fax phone number for this Group is (703) 305-3643.

Any inquiry of a general nature or relating to status of this application or proceeding should be direct to the Group receptionist whose telephone number is (703) 308-0861.

  
Thomas E. Lazo  
Patent Examiner  
Art Unit 3745

TEL  
March 30, 2000

  
EDWARD K. LOOK  
SUPERVISORY PATENT EXAMINER  
GROUP 3700  
*4/4/00*

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Zhu et al. (6,032,619).

Zhu et al. discloses in figure 1 a two piece unitary piston 20 being adapted for use with an engine having a head member 22 made of a material with a preestablished material strength, a crown portion 26 to which is connected a ring band portion 30 defining a bottom surface, and a support portion 42 defining a mating surface having a preestablished surface area, and a skirt member 28 being made of a material with substantially the same preestablished material strength as the head member 22, a ring band support surface 50 aligned with the bottom surface, and a top surface 54 aligned with the mating surface, where the head member 22 and the skirt member 28 are joined by an inertia welding process at the interface of the bottom surface and the mating surface, and the ring band support surface 50 and the top surface 54 respectively to form the two piece unitary piston 20. See Zhu et al. col. 1, lines 6-11.